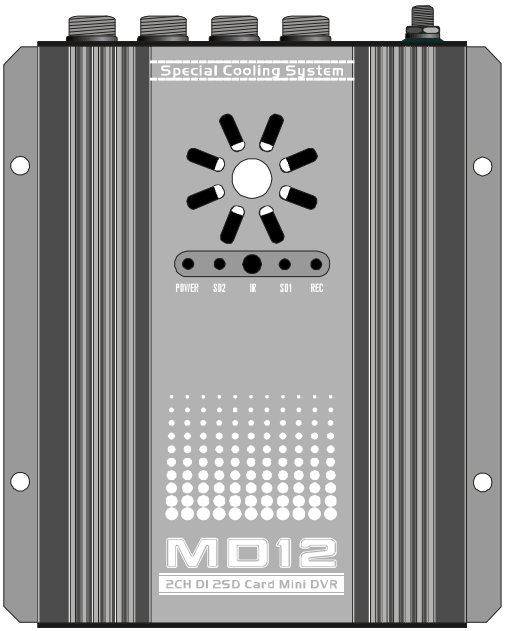
4CH H.264 Mobile DVR

User manual



V2.55 (2013.12.06)

This instruction applies to DVR series products. Please read it carefully before using the products!

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Attentions before use

1. Before powering on the DVR, please connect all the external devices correctly.
2. Please disconnect or reinstall all the external devices after power is off
3. Please remove or reinstall the storage devices after power is off
4. Do not touch the metal parts of the SD Cards,
5. Keep the unit away from water or any liquid;
6. To ensure the DVR work properly, please do not press two or more keys simultaneously.
7. Please make sure the working voltage and current is under the correct range.
8. Please do not assemble, maintain, upgrade or replace the components without permission,
9. For the professional equipment, regular maintenance to cable connection and storage device, fan dust removal and work environment testing are necessary.

Product Overview

The DVR Series productsis a new generation high performance, low consumption 2ch full D1 real time mobile surveillance DVR based on h.264 video compression technology, supports the operation mode including IR remote, USB mouse, Keyboards and web interface. Supports 128GB high capacity high speed SD Card devices (2PCS 64GB SD Card), Supports extensible GPS, Wi-Fi and G-Sensor functions.

GPS function: Users can read longitude, latitude and moving speed of vehicles and moving path on google maps when playback the videos with playback software on PC.

G-Sensor (the gravity sensor technology): Users can get the G-Sensor information and the curve graph for the date when play back videos with playback software.

Wi-Fi function: Supports the video, audio wireless transmission within the coverage of Wi-Fi network. Provided with the matched CMS software, Users can check the real time surveillance video and audio and alarm information of vehicles.

The DVR Series products can compatible with any CCD or CMOS input and output devices in PAL or NTSC system, including the cameras and video out device. The DVR Series products also support central monitoring via LAN network, Cloud technology remote view and mobile monitoring function.

Features:

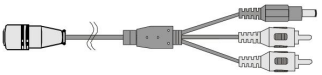
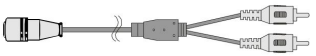
1. Real time surveillance
   DVR equipped with the standard analog audio& video signal output port: AV-OUT (named CVBS signal), which supports to connect the external monitor to realize real time monitoring with larger screen. The max output resolution is: 1440*900. With Wi-Fi function, supports LAN central monitoring and administration.
2. Compression technology
   DVR adopts advanced H.264 video compression technology, each channel`s video and audio adopts independent real time compression technology, make sure that the audio and video to be saved synchronously, and save the storage space. It saves above 2/3 memory space compare to the MPEG-4 compression technology.
3. Safety storage:
   DVR supports 128GB high speed SD Card devices, stored videos adopts professional encryption format, Users can not modify the data privately to ensure the data`s authenticity and safety.
4. Video Playback
   Supports real time local playback function for all channels, and supports files search, events search, single channel playback, multiple channels playback,Selected channels playback, Videos could be played back with the special designed software, the software can play back the GPS data and moving path on google maps, users can also back up the videos via the special player, showing the G-Sensor curve graph on player. Support play back via network.
5. Data back up:
   Users can back up the videos via USB 2.0 port, the USB back up device could be USB flash

Drive, removable HDD, USB-DVDRW, supports back up via playback software and network, when there are several storage devices, users can set one storage devices as redundancy disk to back up the videos.

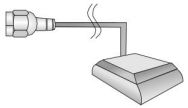
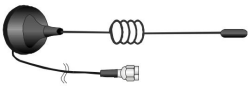
6. Alarm function.
   DVR support motion detect, video blind, video loss, 2 channels alarm inputs and abnormal detect function, support linkage recording, showing message on screen, buzzer, taking snapshot; can send snapshots via E-mail or upload snapshots via FTP; Support one channel relay alarm output switches, and a pair normal open or normal close control port.
7. Network function: DVR support remote view via web browser in LAN, with central monitoring platform in LAN, Support Cloud service and mobile monitor function.
8. Human-based management:
   DVR support multi users and passwords login management style, support 14 species of languages, support USB mouse and keyboard operation modes, with RS485 port, with PTZ function, can import and export the parameter configurations for volume settings and manag ements, with system log function for checking and managing the device easier, can show the stream data for all channels, easier for user to choose the storage device with appropriate capacity, support regular maintenance function, support multi-devices central monitoring management in LAN.
9. Characteristics design:
   DVR adopts 6 groups of power supply system and special cooling system design to ensure the whole system operates stably with high efficiency, device adopts modularized design philosophy, easy to add optional functions such as GPS, G-Sensor and Wi-Fi. DVR adopts the philosophy of driving direction trigger the corresponding channel?s full screen display, DVR adopts whole aluminum alloy ultrathin housing, with anti-theft screw and security protection panel to protect two SD Cards? Slots.

Contents of package

1. Basic Accessories

Serial number	Accessories	Serial number	Accessories
1	One DVR	5	One IR remote
2	Two AVP cables with aviation connector 	6	One Mini USB to standard USB port adaptor
3	One AV cable with aviation connector 	7	One CD for manuals and software
4	One Power cable with fuse	8	Four Anti-vibration kits

2. Optional accessories

Serial number	Accessories	Serial number	Accessories
1	One GPS antenna 	3	Storage device (SD Card)
2	One WIFI antenna 	4	One printed user manual

Notes: The optional accessories will be provided according to customer`s needs

Applications

The DVR Series products are professional 2ch full D1 dual SD Card Mobile DVR which adopts Embedded Linux operation System, based on h.264 digital high definition technology, which is also a advanced platform which supports extended functions such as GPS, Wi-Fi and G-Sensor.

This device applicable for buses, taxi cabs, ships, vans, trains, etc. it is also applicable for the surveillance in fixed places such as offices, factories, home, buildings.

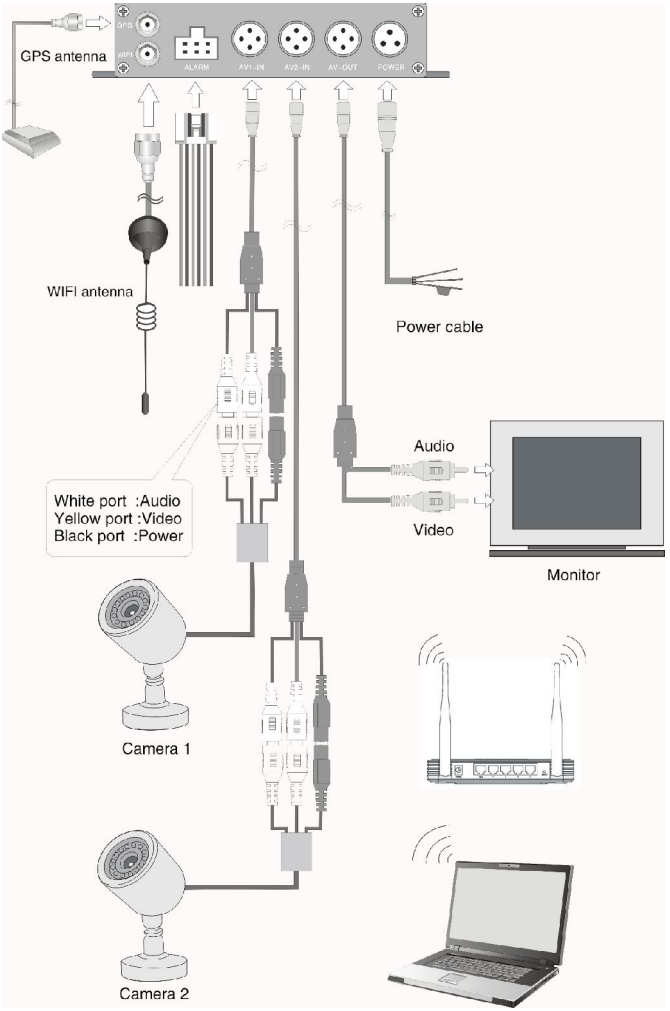
Specifications

Parameters	Descriptions	
Model	The DVR	Basic model
	The DVR	With GPS
	The DVR	With WI-FI
	The DVR	With GPS, WIFI
	Notes: For above models, the G-Sensor function is also available	
Power supply	Car battery (For car use) /Power adaptor (For other applications)	
Power input	DC12V ~ DC36V (Standard working voltage:DC12V~DC24V, limit voltage: DC8V ~ DC38V)	
Working current	Model	the reference voltage: DC24V
	The DVR	300 ±10 mA
	The DVR	320 ±10 mA
	The DVR	350 ±10 mA
	The DVR	370 ±10 mA
Power output	DC12V/1.5A (Provide power for cameras)	

Working temperature	-10℃~+50℃ (limit temperature: -20℃~+60℃)
Video technology	H.264 (Data encryption, need to use the playback software to play the videos
Storage interface	SD card and USB device (U-Disk/USB removable HDD/USB-DVD etc)
Storage capacity	128GB SD/SDHC Card (2pcs 64GB SD Card, SD Card over Class6 is recommended)
Storage mode	Stop when full or overwrite
Camera	CCD and CMOS
TV Standard	PAL/NTSC (All channels should connect the same standard cameras)
Video input	Input standard: input frequency: Vp-p=1.0V, input impedance: 75Ω
Resolution	2 channel D1/Half D1/CIF real time recoding, and support the playback function while recording
Video frame rate	PAL (1~100FPS optional) and NTSC (1~120FPS optional)
Video quality	Multi-grade adjustable
Output signal	CVBS (2ch video+2ch audio, but only support 1ch audio output at a same time
Network port	One 10M/100M Ethernet port (RJ45)
Alarm input	4ch alarm input port (isolating function)
Alarm output	1ch relay alarm output, support 1ch normal open contact
USB Standard	2 USB 2.0 port (Support USB mouse/Key board operation mode, support USB backup
IR receiver1	1 IR receiver terminal (upside of DVR)
Working indicator	On the upside of the dvr mainframe, nearby the cooling fan.
mainframe size	137 (Length) *105 (Width) *25 (Height)
Mainframe weight	Around 445g

Connection

1. Connection diagram



Alarm Port:

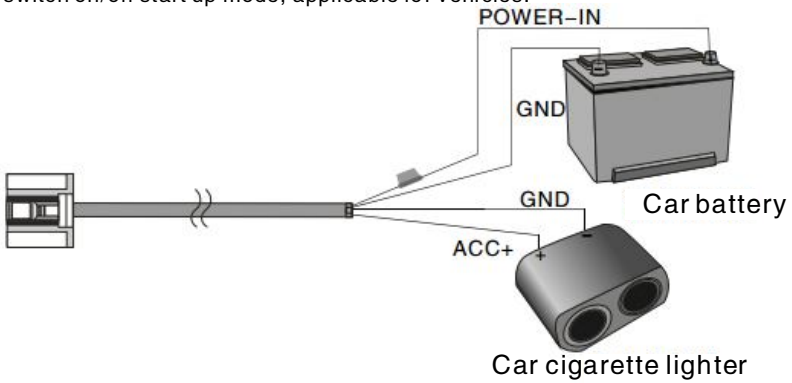
PIN No.	2	4	6
Function	ALARM-IN2	ALARM-IN4	ALARM-OUT1
PIN No.	1	3	5
Function	ALARM-IN1	ALARM-IN3	ALARM-OUT2

Definitions and descriptions of ports:
1. AV1 and AV2 ports: 2ch video input ports
2. AV-OUT: CVBS output ports

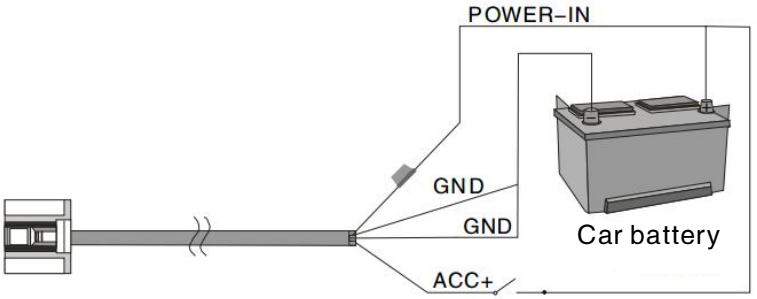
3. Alarm 1–4: 4ch alarm signal input ports. Need to set the related functions in the system menu; support NO/NC switch control signal and high/low level control signal (DC 0.7V < high level <DC 12V, low level< DC 0.6V)
4. ALARM–OUT1 and ALARM–OUT2: Alarm output ports.
   The default setting is: A pair of normal open control contacts of relay; these ports are only applicable for signal control, not applicable for high voltage high current device`s control.
5. POWER: Power input port. supports DC 12V ~ DC 36V input voltage. Suggested input power voltage is: DC12V or DC24V.
6. ACC+ cable from Power port: DVR`s start up control port, High level is effective for this port, the maximum control voltage shall not exceed the maximum input voltage of the POWER–IN port.
7. GND: The common ground port

2. Startup control mode:

①Auto switch on/off start up mode, applicable for vehicles.



②Manually switch on/off control mode, applicable for the use in fixed places.



Notes: ACC+ Cable is the device startup control wire, effective when triggered by high level, usually works with the car cigarette lighter.

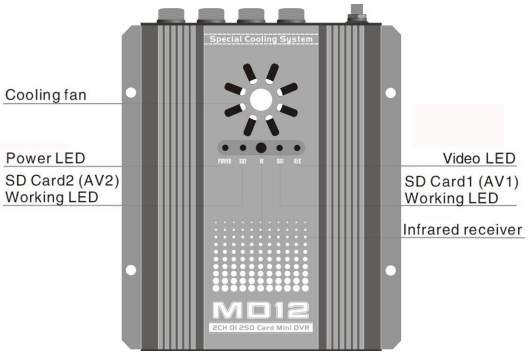
3. Attentions:

①As there are many control ports for the DVR, so we do not use the special designed terminal for each port, Please use the insulating tape to bind up, in case the short circuit with other wires occurs.
②The power indicator will light up (in blue) when the power is input.
③After the DVR connecting power supply, the ACC+ also need to connect to the power, or the device can not start up.

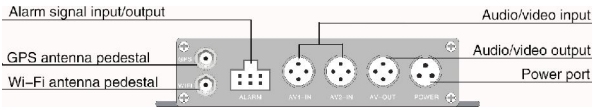
Interface explanation

1. Interface

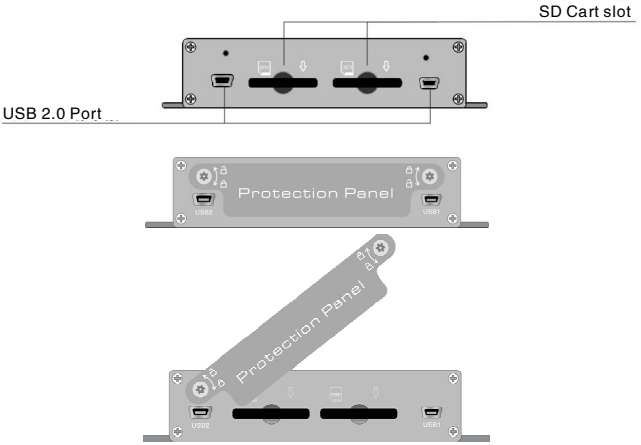
①Front side view



②Side panel A



③Side panel B



Notes:

1. Because some functions are optional, the vacant ports will covered with rubber seal
2. Please connect the Wi-Fi and 3G antenna to the correct socket
3. The definitions of ports on the side panel have been printed at the bottom case, please refer to the guidance to install the DVR.

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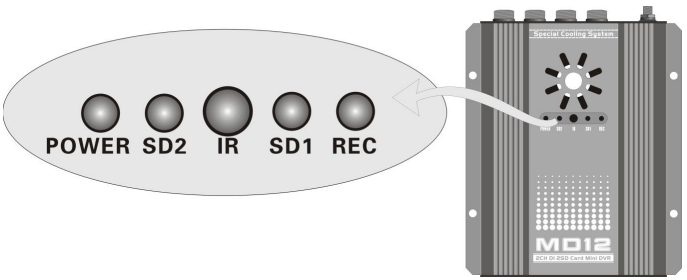
2. IR remote control

Serial No.	Buttons	Functions	Serial No.	Buttons	Functions
1	REC	Record	13	1	Ch1 full screen display
2	STOP	Stop Record	14	2	Ch2 full screen display
3	MENU	Menu	15	3	Ch3 full screen display
4	OK	Confirm	16	4	Ch4 full screen display
5	PLAY	Play	17	5	Ch5 full screen display
6	ESC	Back to previous menu /Exit	18	6	Ch6 full screen display
7	▲	Upward key/Video channels shift button	19	7	Ch7 full screen display
8	▼	Downward key/Video channels shift button	20	8	Ch8 full screen display
9	◀	Left side key/ Video channels shift button	21	▦	Display all channels in preview mode
10	▶	Right side key/ Video channels shift button	22	PTZ	PTZ function
11	◀◀	Rewind	23	ZOOM-	PTZ zoom out
12	▶▶	Fast forward	24	ZOOM+	PTZ zoom in

Notes: All the functions only work after get the permission to access the DVR.

3. Indicators



POWER：Working indicator, keeps on once power on
IR：IR receiver, receiving IR remote control signal
SD1: SD card 1 working indicator, it keeps on when SD card is detected, flash when DVR is recording.
SD2: SD Card 2 working indicator, it keeps on when SD card is detected, flash when DVR is recording.
REC indicator: Rec indicator flashes when DVR is recording, Rec indicator goes out when DVR is not in record mode.

4. Storage device installation

Attentions before installation:

① Disconnect power of DVR before installing and removing SD Cards.
② To prevent the SD Cards from damaging by static electricity, You can use the electrostatic ring or touch grounded objects/ Metal objects before touching SD cards. Such as metal faucets.

Notes:
① For newly installed SD Cards, the DVR will format them automatically. If the storage device can not support recording, please enter into the menu and set the installed storage device as "Read/Write" disc. If user wants to save the snapshot triggered by alarm, please set the storage device as "snapshot" disc. If user wants to use the redundant back up function, please set the storage device as "redundant" disc.
② If user needs to use SD Card or USB device to save the recordings, please tick "SD Card record" and "USB record" in the sub menu "Record config", and then restart the system.
③ If user wants to use USB device to back up the video files, please cancel the "USB record" option in menu firstly, or the system will regard the USB as storage device and will format it after DVR starting.

5. Memory occupancy calculation

When you install the 2ch dual SD Card DVR for the first time, please check if any SD Cards are installed. And check the write protect switch.

The Capacity of SD Card storage device:

The DVR Series 2ch dual SD Card mobile DVR supports maximum 128GB storage device (2 pcs 64GB SD Cards), User can choose the appropriate SD Card accordingly.

How to choose SD Card`s capacity?

Formula for Storage space occupation:

Total storage capacity (M) =
numbers of channels (CH) * required time (H) * occupied capacity per hour (M/H)

Formula for recording time:

Recording time (H) =
Total storage capacity (M) T/【numbers of channels (CH) * occupied capacity per hour (M/H) 】

Please notes:

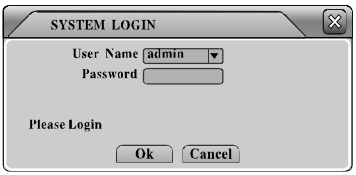
The DVR Series products adopt H.264 compression technology, with comparatively wide dynamic range, and different video input devices will affect the bit stream statistics obviously. So when user calculate the above parameters, please refer to all channels` bit stream info in menu, to make sure the calculation as accurate as possible, and assist user to choose more appropriate storage devices.

For instance:

User use a 64GB/C6 standard SD Card, take 2ch full real time D1/25FPS high quality recording as an example, the SD Card will record for around 50hours, each single channel will takes around 300MB capacity per hour, the recording time of 2ch real time high quality recording will be: 64GB /(300 M/B * 4CH) ≈50H

1. System Login

You will be required to enter the Password while trying to access the setup menu. Initially, there are three users from three groups: "**admin**", "**guess**", and "**default**", and all three users have no passwords. The supper user "**admin**" is able to add, modify or delete groups or other user accounts, change the passwords, and even define the "**Authority**" of other users in the setup menu. Please refer to 3.4.2.

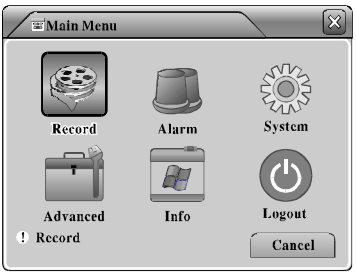


2. Shortcut Menu

Right click the mouse after you enter "**Preview Mode**", a shortcut menu will pop out as shown; from here you can go to **Main Menu**, **Record Mode**, **Play Back**, **PTZ Control**, **High –Speed PTZ**, **Alarm Output**, **Color Setting**, **Output Adjust**, or **Logout** pages.

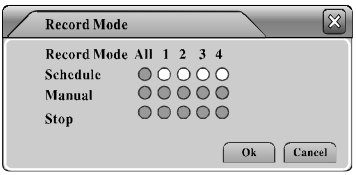
2.1 Main Menu

Click Main Menu in shortcut menu and go to "**Main Menu**" directly as shown;



2.2 Record Mode

Click Record Mode in shortcut menu and go to "**Record Mode**" setup page as shown;

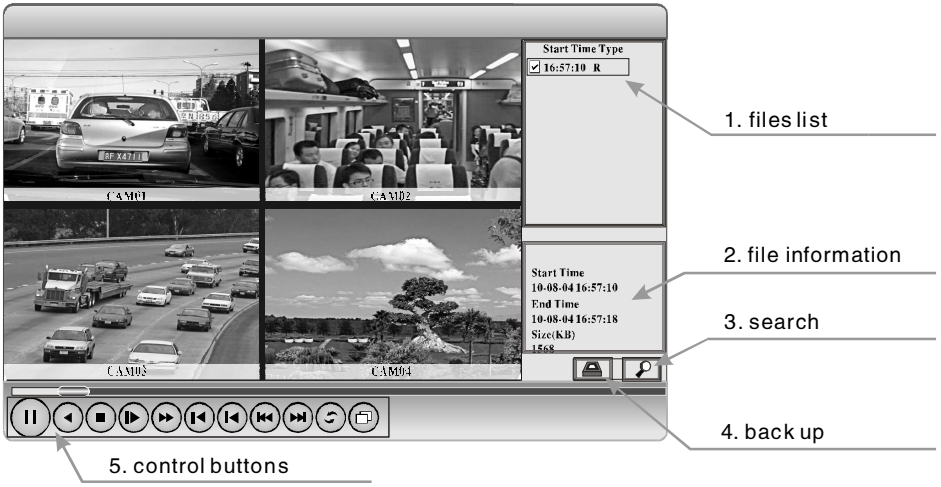


Schedule: Start recording according to configuration;
Manual: Start recording regardless of configuration;
Stop: Stop recording.

Note: the small circle would turn white when selected.

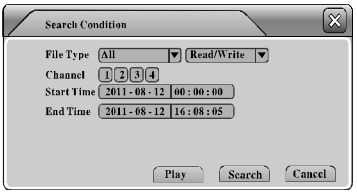
2.3 Playback

Click Play Back in shortcut menu and go to "**Playback**" interface as shown;



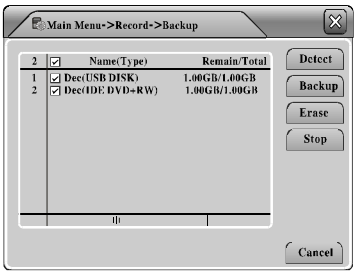
Button	Function	Button	Function	Button	Function
	play/pause		backward		stop
	slow play		fast play		previous frame
	next frame		previous file		next file
	circulation		full screen		

2.31 File Searching

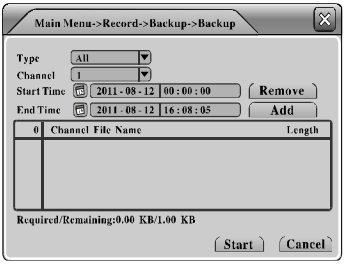


Click , the "**Search Condition**" dialog box will pop out; set the search conditions and start to search.

2.32 File Backup



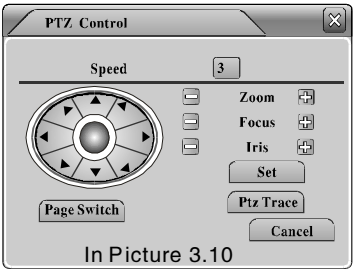
Connect a storage device (USB Disc or SD card) to the DVR in advance, click and then "**Detect**"; select a device, and click "**Backup**" to go to the next step, please refer to 3.4.



Choose "**File Type**", "**Channel**", "**Start Time**", "**End Time**", "**Backup Format**", and then click "**Start**" to execute.

2.4 PTZ Control

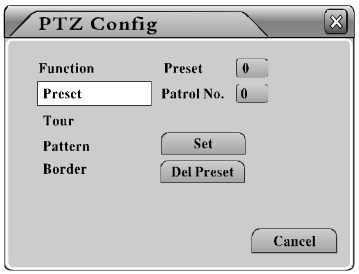
Click PTZ Control in shortcut menu and go to "**PTZ Control**" page as shown;



In Picture 3.10

Here you can adjust "**Speed**", "**Zoom**", "**Focus**", "**Iris**", Change the direction, Check "**PTZ Trace**" or do more by clicking Page Switch to go to other pages.

Note: please make sure the PTZ has been correctly connected, and all parameters properly set in "PTZ Config" in advance.



Click Set , you will go to "**PTZ Config**" page as shown;

Here you can modify the settings of "**Preset**", "**Tour**", "**Patter**", and **"Border**".

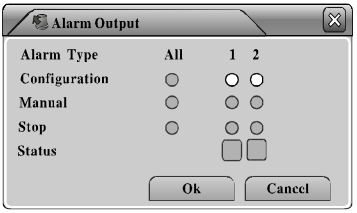
2.5 High Speed PTZ

Click HighspeedPTZ in shortcut menu, the camera which has been connected to PTZ will be shown in full screen; you can change the direction of the PTZ by clicking the mouse or zoom in/out the image by rotating the mouse.

Note: Please make sure the PTZ connected supports high-speed operation.

2.6 Alarm output

Click Alarm Output in shortcut menu and go to "**Alarm Output**" setup page as shown;

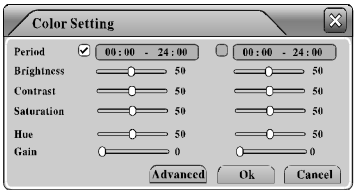


Configuration: Alarm on according to configuration;
Manual: Open Alarm output regardless of configuration;
Stop: Close Alarm output.

Note: the small circle would turn white when selected.

2.7 Color Setting

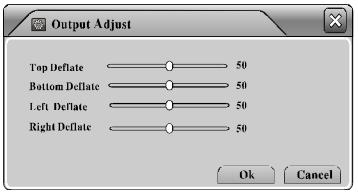
Click Color Setting shortcut menu and go to "**Color Setting**" page as shown;



Here you can adjust the "**Brightness**", "**Contract**", "**Saturation**","**Hue**", and "**Gain** "of the image. You can set two different groups of settings for different time periods.

2.8 Output Adjust

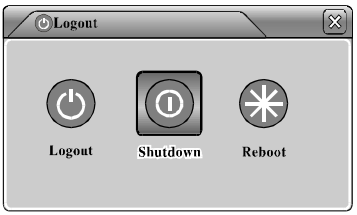
Click Output Adjust in shortcut menu and go to "**Output Adjust**" page as shown;



Here you can adjust the "**Top Deflate**", "**Bottom Deflate**", "**Left Deflate**" and "**Right Deflate**" of video output.

2.9 Logout

Click Logout in shortcut menu, the "**Logout**" dialog box will pop out as shown;



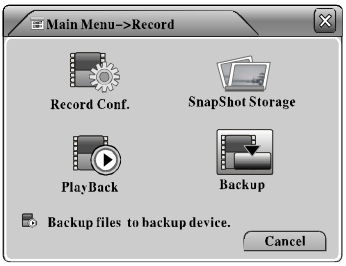
Logout: exit "**Logout**" menu;
Shutdown: Turn off the DVR;
Reboot: Restart the DVR.

3. Main Menu

Click Main Menu in shortcut menu or press "Menu" on IR remote control; there are six submenu items: Record, Alarm, System, Advanced, Info and Logout; see menu navigation as follows;

Record	Config	Set the recording configuration, recording type, recording time section
	playback	Set recording look-up, recording play, video file storage
	backup	Detect or format backup equipment, back the selective files
Alarm	Motion detection	Set motion detect alarm channel, sensitivity, area, linkage parameters: Defending time section, alarm output, screen hint, recording, PTZ,patrol
	Video blind	Set camera mask alarm channel, sensitivity, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Video loss	Set video loss alarm channel, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Alarm input	Set alarm input channel, equipment type, linkage parameters:defending time section, alarm output, screen hint, recording, PTZ, patrol
	Alarm output	Set alarm mode: configuration, manual, shut down
System configuration	General configuration	Set system time, data format, language, hard disk full time operation, machine number, video format, output mode, summertime, stay time
	Encode configuration	Set main(assistant)coding parameter: code mode, resolving ability, frame rate, code stream control, image quality type, code stream value, frame between value, video/audio enable
	Network configuration	Set basic network parameters, DHCP and DNS parameters, network high speed download
	NetService	PPPOE、NTP、Email、IP purview、DDNS parameter
	GUI display	Set channel name, preview hint icon state, transparency, cover area, time title, channel time fold
	PTZ configuration	Set channel, PTZ protocol, address, baud rate, date bit, stop bit, check
	Serial port configuration (Rs232)	Set serial port function, baud rate, date bit, stop bit, check
	Tour	Set patrol mode and interval time
Management tools	Hard disk Management	Set appointed hard disk as read-write disc, read-only disc or redundant disc, clear data, resume date and so on
	User Management	Modify user, team or password. Add user or team. Delete user or team.
	Online user	Break the connection with the already login user. Lock the account after break until booting up again.
	TV adjust	Adjust TV upside, downside, nearside, starboard distance
	Automatic Management	Set automatic reboot system and automatic deleting files.
	Restore	Resume setup state: common setup, code setup, recording setup, alarm setup, network setup, network service, preview playback, serial port setup, user management
System information	Hard disk Information	Display hard disk capability and recording time
	Codestream Statistics	Display code stream information
	Log Information	Clear all log information according to the log video and time
	Edition information	Display edition information
Shut down		Logout, shut down or reboot

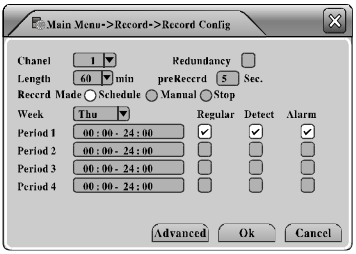
3.1 Record



There are 4 submenu items under "**Record**": "**Record Conf.**", "**Snapshot Storage**", "**Playback**" and "**Backup**".

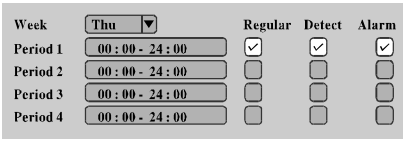
3. 1.1 Record Config

Here you can configure the recording setting for every channel. You can define "**Video Clip Length**", "**Pre-Record Time**", "**Record Mode**", and even set "**Recording Schedule**" for everyday, 4 periods a day.



Channel: Select 1 channel or all 4 channels for configuration;
Redundancy: When two storage devices are installed, select "Redundancy", the vide files will be backed up to all two disks;
Length: Define length of video clip; the default value is 60 minutes;
Pre-Record: Define pre-recording time, 1-30 seconds selectable;
Record Mode: Define"Record Mode", there are 3 options;

A. **Schedule**: Start recording during the time periods set in the below schedules

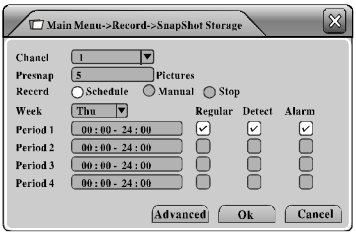


Regular: Start regular recording during the preriod set; the video file type is "R";
Detect: Start recording only when triggered by "MotionDetection", "Camera Mask", or "Video Loss" during the period set; the video file type is "M";
Alarm: Start recording while triggered by external alarm signal during the period set; the video filetype is "A".

B. **Manual**: Start recording no matter how the schedule is set.
C. **Stop**: Stop recording.

Note: the configuration is only valid to the selected channel(s).

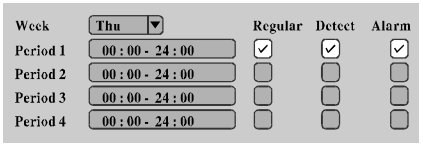
3.1.2 Snapshot Storage



Here you can configure the "**Snapshot Storage**" setting for every channel. Please note that there should be at least one storage device set as "Snapshot Disk" if you want to store snapshots, please refer to 3.4.1.

Channel: Select 1 channel or all 4 channels for configuration;
Presnap: Set "Pre-snapshot Picture Number"; the DVR will take snapshots as set before recording happens;
Record: define Snapshot Modes; there are 3 options;

A. **Schedule**: Enable " Snapshop " function during the time periods set in the below schedules;



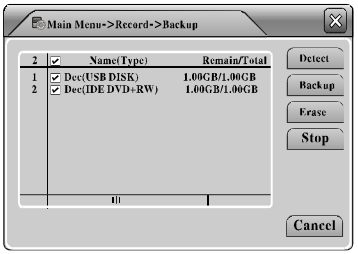
Regular: Store snapshots during the period set when "Regular" recording is happening;
Detect: Store snapshots during the period set when " Detect" recording is happening, which are triggered by "Motion Detect", "Camera Mask" or"Video Loss";
Alarm: Store snapshots during the period set when "Alarm" recording is happening, which are triggered by external alarm signal;

B. **Manual**: Enable "Snapshot" function in any cases;
C. **Stop**: Disable "Snapshot" function in any cases.

3.1.3 Playback

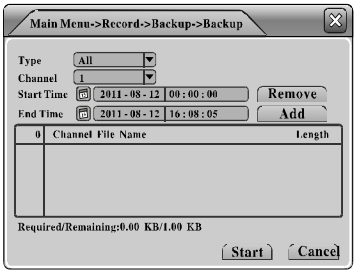
Please refer to 2.3.

3.1.4 Backup



Here you can back up recorded video files to external storage device, either a SD card or a Hard Drive. Please make sure you have connected the storage devices to the DVR in advance.

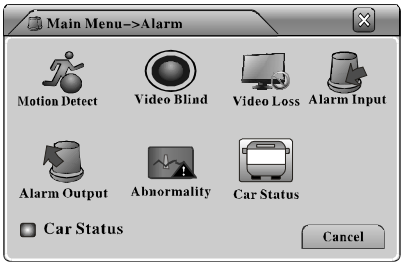
Click "**Detect**" to search Storage Devices, Select one disk for video backup;



Click "Backup"to go to the next page to Choose "**File Type**", "**Channel**", "**Start Time**", "**End Time**", "**BackupFormat**" as shown, and then click "**Start**" to back up files.

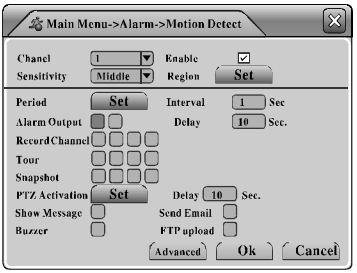
Note: you can also do other operation while Video Backup is being processed.

3.2 Alarm



There are 7 submenu items under "**Alarm**": "**Motion Detect.**", "**Video Blind**", "**Video Loss**" and "**Alarm Input**", "**Alarm Output**", "**Abnormality**" and "**Car Status**".

3.2.1 Motion Detect

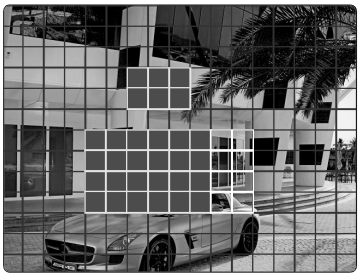


Here you can configure the "**Motion Detect**"setting for every channel.

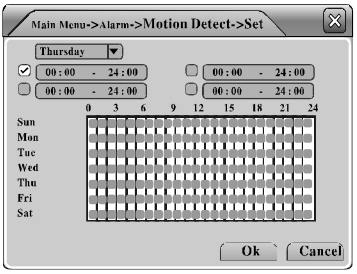
Channel: Select 1 channel or all 4 channels for configuration;

Enable: Enable/Disable "**Motion Detect**" function;

Sensitivity: Select "**Sensitivity**" Level; there are 6 options;



Region: Set "**Motion Detect**"area.



Period: Set "**Motion Detect**" schedules.

Interval: Set "**Motion Detect Interval**"; only one motion can be det ected during the set interval;

Alarm output: Start the external alarm equipment which is connected to Alarm output once motions are detected;

Alarm Delay: Set "**Alarm**" signal duration;

Record Channel: The selected channel (s) would start recording when motions are detected;

Tour: The selected channel (s) will be shown in full screen in turn, when motions are detected, refers to 3.3.8 for "**Tour Interval Setting**";

Snapshot: The selected channel (s) would take snapshots when motions are detected;

PTZ Activation: Activate the PTZ equipment when motions are detected; the PTZ equipment would work as set, refer to 3.3.6;

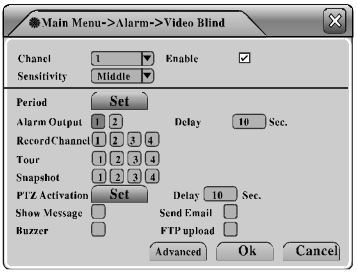
Record Delay: Set "**Record Delay Time**"after alarm ends;

Shown Message: When motions are detected, the alarm dialog box would pop out;

Send Email: When a motion is detected, the DVR would send an email to the user, refer to 3.3.4 for **"Email Setting"**;

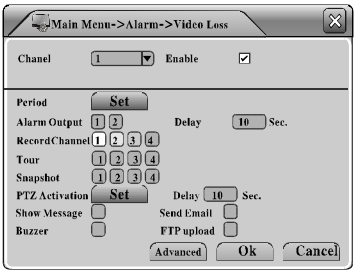
Buzzer: open the buzzer when motions are detected.

3.2.2 Video Blind



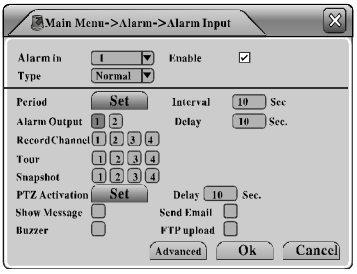
Here you can configure "**Video Blind**" Alarm Settings; when the image is influenced by the enviroment or by human behavior, the alarm would be activated. For settings of linkage options, please refer to 3.2.1 "**Motion Detect**".

3.2.3 Video Loss



Here you can configure"**Video Loss**" alarm settings; when the video input signal is lost on the selected channel (s), the alarm would be activated. For settings of linkage options, please refer to 3.2.1 "**Motion Detect**".

3.2.4 Alarm Input

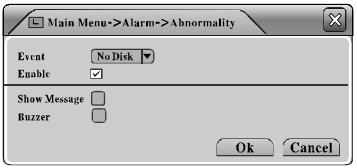


Here you can configure"**Alarm input**" alarm settings; the DVR supports when the video input signal is lost on the, the alarm would be activated. For settings of linkage options, please refer to 3.2.1 "**Motion Detect**".

3.2.5 Alarm Output

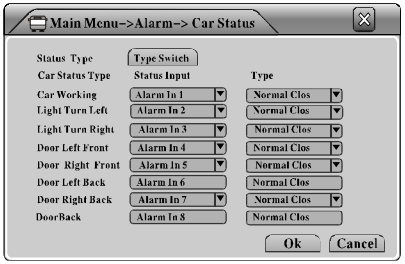
Please refer to 2.6.

3.2.6 Abnormality



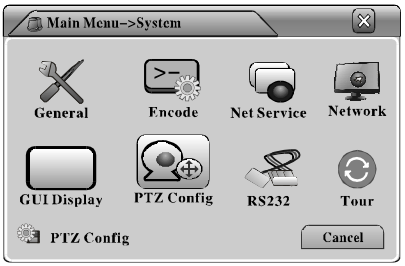
When it is set in this option, the DVR will analyze the hardware and software and react to the abnormal phenomena, show the alarm dialog box or open the buzzer.

3.2.7 Car Status



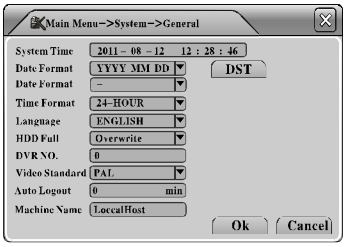
Here you can configure the 4 alarm inputs and connect them to the doors or lights of your vehicle; for example, when the door is open, or the turn left light is on, the corresponding alarm input would be detected.

3.3 System



There are 8 submenu items under "**System**": "**General**", "**Encode**", "**Network**", "**Net Service**" and "**GUI Display**", "**PTZ Config.**", "**RS232**" and "**Tour**".

3.3.1 General



Here you can configure "**General Settings**" for the DVR system;

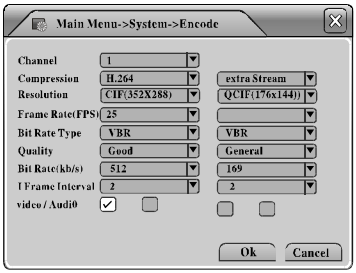
Menu Language: 14 languages optional, English, French, Portugueses, Russian, Italian, S-Chinese, T-Chinese, Spanish, Thai, Greek, Japanese, German, and Polish;

HDD Full: Memory Storage Modes; "**Stop When Full**"or " **Overwrite When Full**";

Video Standard: PAL or NTSC;

Auto Logout: Set menu auto log out time; "0" means "never logout automatically".

3.3.2 Encode



Here you can set video/ audio "**Encode**" parameters. There are 2 groups of "**Encode**" Settings; Generally speaking, the first group is for high quality local video storage and the other group called "**Extra Stream**" is for **remote video transmission** which is relatively low quality so as to ensure the fluency of the video stream;

Channel: Select 1 channel or all 4 channels for settings;

Compression: Compression format; the default format is H.264;

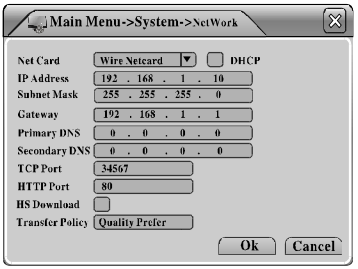
Resolution: Video resolution, D1/ HD1/ CIF/ QCIF adjustable;

Frame Rate: Adjustable; Maximum Frame Rate: 25FPS (NTSC) or 30FPS (PAL);

Bit Rate Type: VBR (Variable Bit Rate) or CBR (Constant Bit Rate) selectable;

Quality: Video Quality, 6 levels adjustable;
Bit Rate: select a bit rate value once "CBR" Bit Rate Type is selected; D1 (512~2560kbps)/ HD1 (384~2048kbps)/ CIF (64~1024kbps)/ QCIF (64~512kbps);
Video/ Audio: Record"Video" or "Audio", or both.

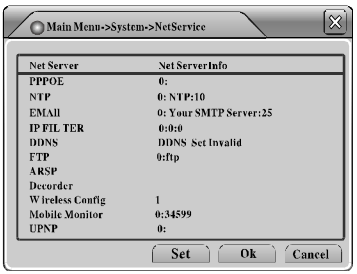
3.3.3 Network



Here you can configure "**Wired Network**" settings if you need to use the internet function;

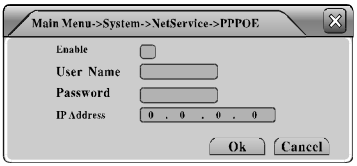
Net Card: Wire Netcard;
DHCP Enable: Automatically Attain IP Address (Not recommended);
Note: please make sure the DHCP Server is built in advance if you need to use this function.
IP Address: set IP address for the device;
Media Port: Set "**TCP Port**" for the device;
HTTP Port: Set "**HTTP Port**"for the device;
HS Download: High Speed Download from Internet;
Transfer Policy: Transfer Priority; Quality Preferred, Fluency Preferred or Adaptive;

3.3.4 Net Service



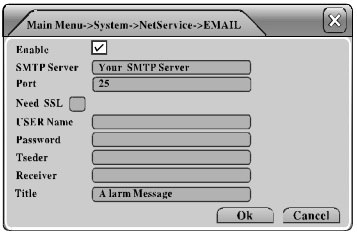
Here you can configure Advanced Network Settings for the device. Double click each item and the corresponding dialog box would pop out.

a. PPPoE



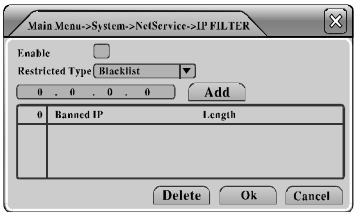
Enter the "**User Name**"and "**Password**" provided by **ISP** (Internet Service Provider), reboot the DVR, it will build the connection to the Internet via "**PPPoE**" and attain the "**IP address**" automatically.

b. EMAIL



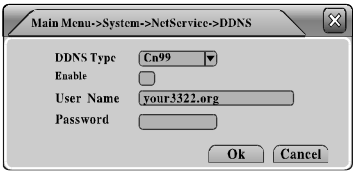
Enter the email information here, and the DVR will be able to send emails with alarm information or snapshot to the appointed receivers (maximum 3 email addresses) when alarms happen.

c. IP FILTER



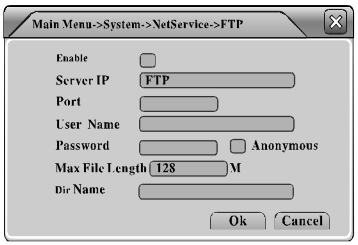
You can put IP addresses in the "**Blacklist**" or "**White List**". IP Addresses in the "**White List**" are able to access the device; on the contrary, IP Addresses in the "**Black List** "Will be blocked; you can set maximum 64 IP Addresses.

d. DDNS



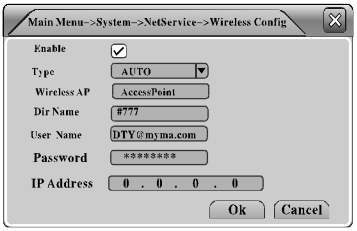
"**DDNS**"is short for "**Dynamic Domain Name Server**".If "**DDNS**" setting is successfully configured, you can visit the Device via the Domain Name with the IE Browser;
DDNS Type: Select "**DDNS Type**";
Domain Name: Enter the "**DDNS domain name**";
User Name/ Password: Enter the DDNS "**User Name**" and "**Password**".

e. FTP



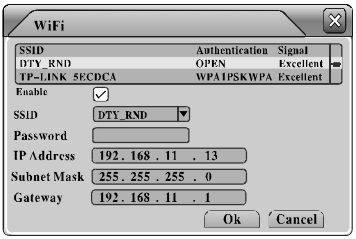
"**FTP**" is for uploading video files or snapshot to the appointed FTP Server when alarms happen or recording, snapshot triggered by alarms.
Server IP: Enter the IP address of FTP Server;
Port: Enter the Domain port of FTP Server;
User Name: Enter User Name;
Password: Enter User Password;
Max File Length: Set Max File Length for unloadng;
DirName: File Directory for uploading.

f. Wireless Config



The DVR supports remote monitoring via 3G network. here you can configure the "3G" Settings;
Type: Select 3G "Dial Mode";
Wireless AP: Enter 3G AccessPoint;
Dial Number: Enter 3G Dial Number;
User Name: Enter 3G User Name;
Password: Enter 3G User Password.
Note:1. Make sure there is a 3G module built-in the DVR;
2. Ask your 3G Service Provider for the above parameters; for example, the settings for China Unicom are as follows:Wireless AP: 3gnet; Dial Number: *99#; User Name: no; Password: no

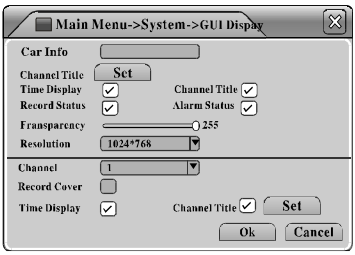
g. Wifi



The DVR supports "**remote monitoring**" via Wifi network, here you can configure the "Wifi" Settings;
Search: Search Wireless Network in local area, and then double click to choose one of them;
Password: Enter the "Password" of the Wireless Router;
IP Address: Enter the IP address of the Device;
Subnet: Enter the Subnet Mask of the Device;
Gateway: Enter the Gateway of the Device.

Note: Make sure there is a Wifi Module built-in the DVR before you use this function.

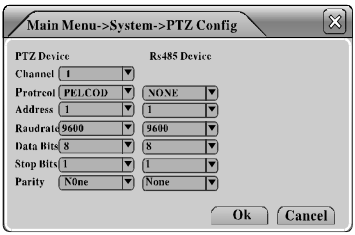
3.3.5 GUI Display



Here you can configure the settings for OSD Items, Transparency, Resolution, and so on.

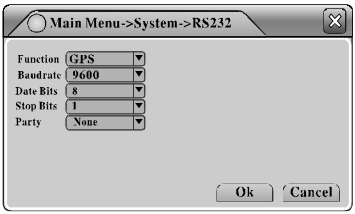
Car Info: Enter an ID for the Device;
Channel Title: Enter a title name for each channel;
[Choose OSD items] Click the square on the right to show/ hide the corresponding item, such as "**Time Display**", "**Channel Title**", "**Record Status**", "**Alarm Status**" and so on;
Transparency: Move the horizontal scroll bar to adjust the transparency of the Menu interface;
Resolution: Set video output resulotion;

3.3.6 PTZ Config.



Channel: Select the video channel which is connected to PTZ device;
Protocol: Set the "**Protocol**"of the PTZ device;
Adress: Enter the "**Address**" of the PTZ device;
Baudrate: Select the "**Baudrate**" used by the the PTZ device;
Data Bits: Select "**Data bits**" for the PTZ device;
Stop Bits: Set"**Stop Bits**"for the PTZ device;
Parity: Set "**Pairty**" for the PTZ device, "**Odd**", "**Even**", "**Mark**", "**Space**" or "**None**".

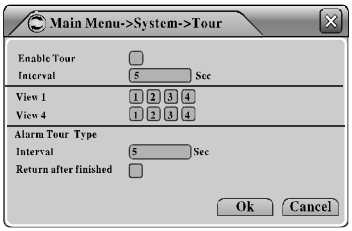
3.3.7 RS232



In general, we use "**RS232**" interface for GPS function only. Select "**GPS**" in the first blank, enter Baudrate "**9600**", Data Bits "**8**", Stop Bits "**1**" and Select Parity "**None**", the GPS will work.

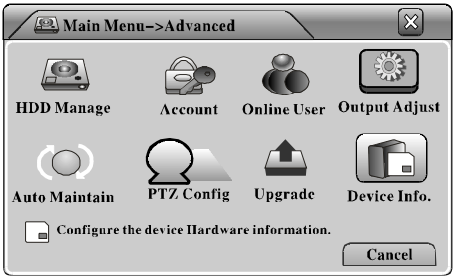
Note: the setting is only valid for the models which support GPS function.

3.3.8 Tour



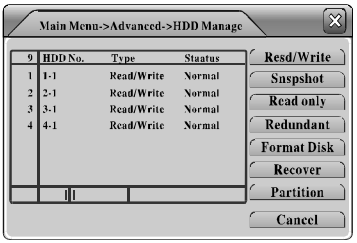
Here you can configure the"**Tour**" settings, for example, if interval is set "**5**" seconds, CH1, CH2, CH3 , CH 4 are selected, then the image would cycle among the 3 channels, tour from one to another every 5 seconds; and you can also set "**Interval**" for "**Alarm Tour**" here.

3.4 Advanced



There are 8 submenu items under "**Advanced**": "**HDD Manage**", "**Account**", "**Online User**," "**Output Adjust**", "**Auto Maintain**", "**Restore**", "**Upgrade**" and "**Device Info**".

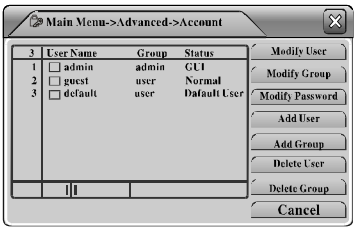
3.4.1HDD Manage



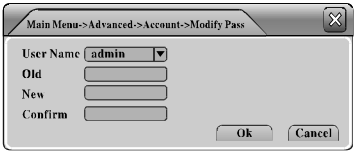
Here you can manage all Memory Storage Devices. All devices (HDD, USB Disk or SD card) information will be shown in the form on the left, including "**HDD No.**", "**Type**","**Status**", and so on.You can define a disk as "**Read & Write Disk**", "**Snapshot Disk**", "**Read only Disk**", or "**Redundant Disk**", you can "**Format**"the Disk, "**Recover**" the Disk, or "**Partition**" the disk with those buttons on the right side.

Note: Make sure at least there is one "Read Write Disk".

3.4.2 Account

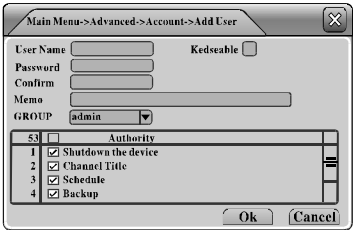


Here you can manage all User Accounts. All User Information is shown in the form on the left, including" **User Name**", "**User Group**", "**User Status**". You can "**Modify User**", "**Modify Goup**", "**Modify Password**", "**Add Group**", "**Delete User**", "**Delete Group**", or "**Update User**" with those buttons on the right side.

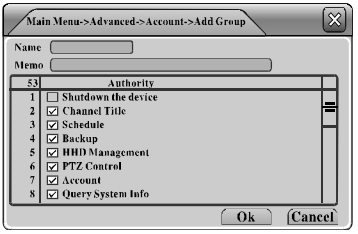


【Modify Password】

【Delete Group】

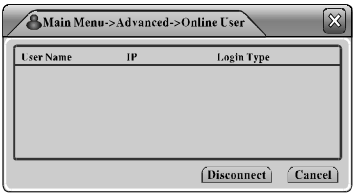


【Add User】



【Add Group】

3.4.3 Online User

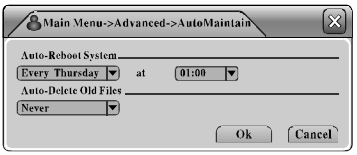


Here you can see all "**Online Network Users**" who are visiting the DVR devices. Select one online user, click"**Disconnect**", the connection will be cut, and the user will be blocked until the device boot up next time.

3.4.4 Output Adjust

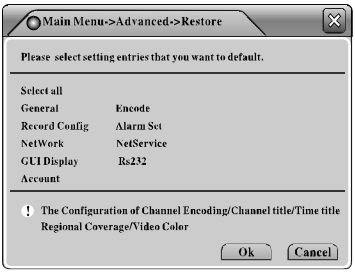
Please refer to 2.8 "Output Adjust".

3.4.5 Auto Maintain



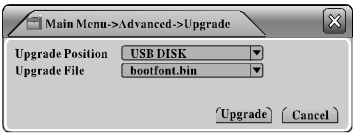
Here you can set "**Auto Reboot**" and "**Auto Delete Files**" time for the device.

3.4.6 Restore



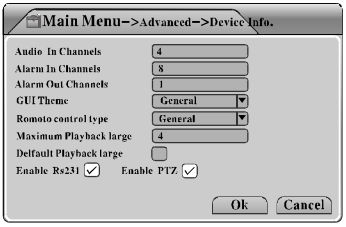
Here you can restore all settings to "**Factory Settings**". Select the corresponding items, and click"**OK**" to execute.

3.4.7 Upgrade



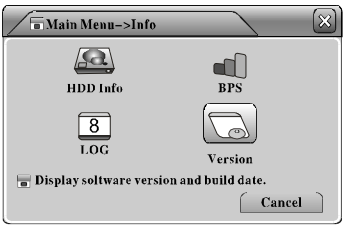
Plug in a USB disk with Upgrade Firmware, the DVR will detect the upgrade file automatically. Navigate to this page, and click "**Upgrade**" to execute. The DVR will reboot automatically when the"**Upgrade**" is done.

3.4.8 Device Info.



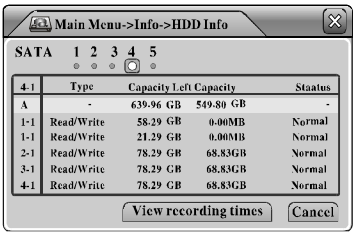
Here you can see the "**Device information**" of the DVR, including "**Audio in Channels**", "**Alarm in Channels**", "**Alarm out Channels**", "**GUI Theme**" and so on.

3.5 Info.



There are 4 submenu items under "**Info.**": "**HDD Info**", "**BPS**", "**LOG**" and "**Version**".

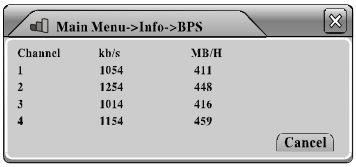
3.5.1 HDD Info


Main Menu->Info->HDD Info
SATA 1 2 3 4 5
4-1 Type Capacity Left Capacity Staatus
A - 639.96 GB 549.80 GB -
1-1 Read/Write 58.29 GB 0.00MB Normal
1-1 Read/Write 21.29 GB 0.00MB Normal
2-1 Read/Write 78.29 GB 68.83GB Normal
3-1 Read/Write 78.29 GB 68.83GB Normal
4-1 Read/Write 78.29 GB 68.83GB Normal
View recording times
Cancel

Here you can see information of all Storage Devices, including "**Disk Type**", "**Capacity**", "**Left Capacity**", and "**Status**".

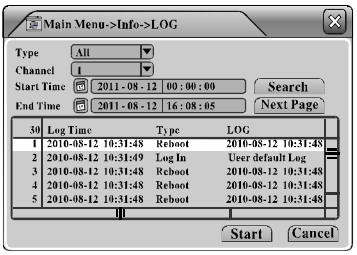
Note: If the disk is in good condition, a circle " o " will be shown on the top correspondingly; otherwise, a wrong mark " X " will be shown; if no disk connected, then a dash mark " – ".

3.5.2 BPS



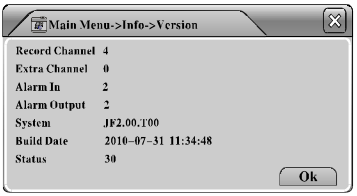
Here you can see real–time "**Bit Stream Info**" (Kb/S) of each channel and "**Memory Take–up Rate**"(MB/H).

3.5.3 LOG



Here you can check all "**Even Log Information**" of this device, including "**Log Time**", "**Log Type**", and "**Log Detailed Info**"

3.5.4 Version



Here you can check Hardware and Firmware information of the Device.

3.6 Logout

Please refer to 2.9 .

Mouse operation

The DVR supports Mouse Operation, here is the operation instruction.

Operation	Function
Double left click	Double click one item to play in the files list.
	Double click one channel to show in full screen or 1/4 screen
Left click	Select one item
Right click	Pop out Shortcut Menu
Roll the whee	Tour from one image to another at Preview Page

Preview

	Record Icon
	Motion Detect Icon
CAM01	Channel ID
	Audio output Icon
	Snapshot Icon
	Video Loss Icon

FAQ

1. Can not boot up normally

Possible reasons are as follows;
A. The power supply is not right;
B. The connection of power cable is bad;
C. Error happened during firmware upgrade;
D. The Hard Drive is broken;

2. Can not detect Hard Drive

Possible reasons are as follows;
A. The Hard Drive is broken;
B. The Hard Driver is not properly connected;
C. The SATA connector on the main PCB board is damaged.

3. Crash or reboot automaticallylly

Possible reasons are as follows;
A. The input power voltage is not stable or too low;
B. The Hard Drive is broken;
C. Bad heat radiator or too much dust or bad running circumstance;
D. Some problem with the DVR hardware.

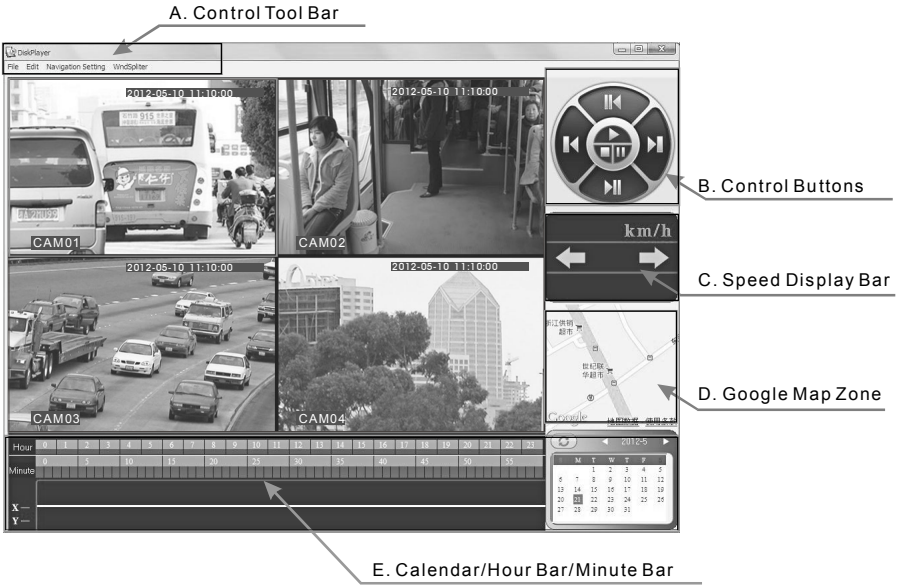
4. No color/ distorted Image

Possible reasons are as follows;
A. The color settings of the monitor is not right;
B. The video signal is too weak after long distance transmission;
C. TV standard mismatched; check if DVR, camera, and monitor are in the same TV standard, PAL or NTSC;

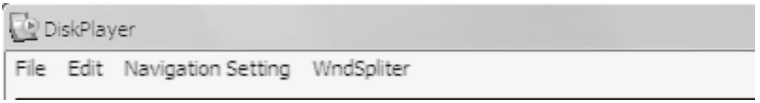
5. No video output

Possible reasons are as follows;
A. Video output cable is broken or not properly connected;
B. There is no video input signal or the signal is too weak;
C. The image brightness is set "0";
D. TV channel mismatched; please switch the monitor to AV channel.

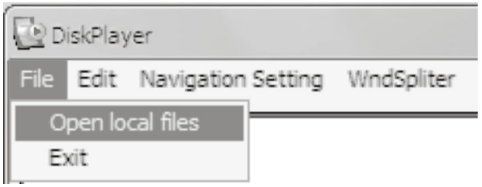
DiskPlayer



A. Control Tool Bar



1. File

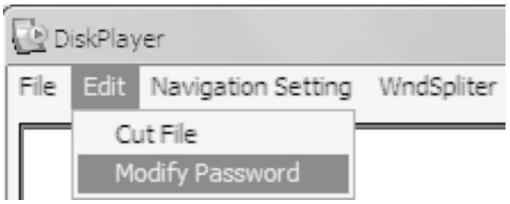


a. Open local files

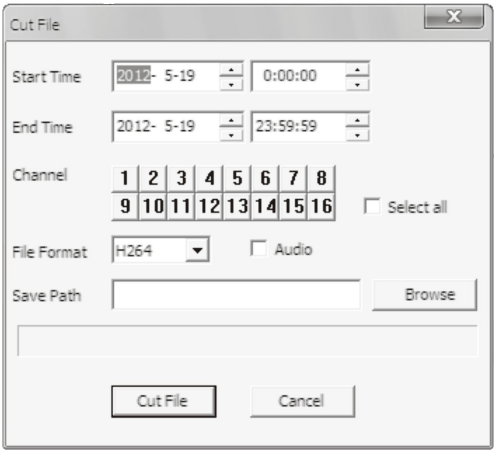
b. Exit

Exit DiskPlayer.

2. Edit

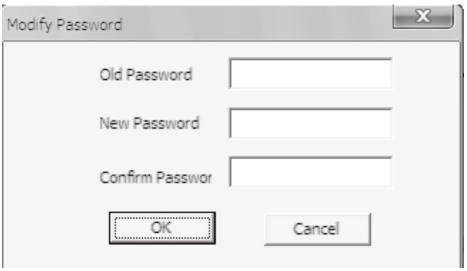


a. Cut file

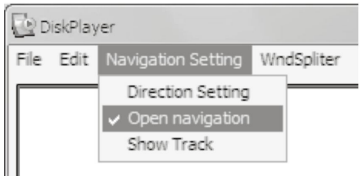


Note: here you can back up video to your computer, select "Start Time", "End Time", "Channel", and a path for saving files.

b. Modify Password



3. Navigation Setting



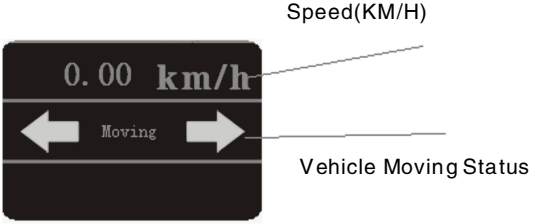
Select "Open Navigation", you will see Google Map at the bottom right showing the position of the vehicle.

B. Control Buttons

Please refer to the form for function of each button;

Button	Function	Button	Function
	Slow x1/x2/x3/x4		Play
	No Use		Pause
	Fast x1/x2/x3/x4		Stop
	Play Frame by Frame		

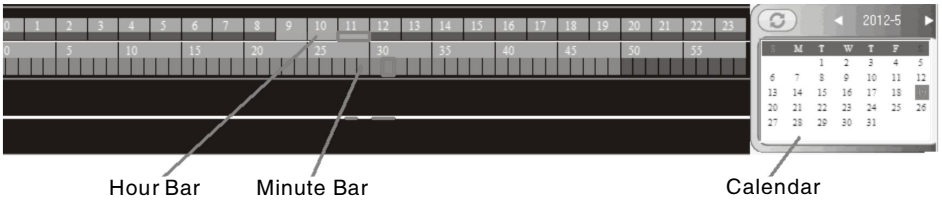
C. Speed Display Bar



D. Google Map Zone

If the "Open Navigation" is selected, you will be able to see the vehicle position, while playing video.

E. Calendar/Hour Bar/Minute Bar



Double click the number in Calendar, the Hour bar and the Minute Bar will change correspondingly.

1. Red number in Calendar means there was recording during the corresponding day;
2. Green in Hour Bar means there was recording during the corresponding hours;
3. Blue in Minute Bar means there was recording during the corresponding minute.

GUARANTEE CARD

ITEM:	MODEL:	ITEM NO.:
DATE OF PURCHASE:		
CLIENT NAME:		
CONTACT ADDRESS:		
CONTACT TEL		

IMPORTANT NOTICE

1. Please fill out the Guarantee Card strictly according to the facts;
2. Only will this Guarantee Card be valid when sealed by our franchisers;
3. We provide 1 year warranty to the product. If product fails to work properly under warranty period, our factory will help repair it free of charge;
4. This limited warranty does not apply to:
   (1). Damage to a product that is out of warranty;
   (2). Cosmetic damage, such as scratches, nicks and dents;
   (3). Damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature;
   (4). Damage caused by service performed by anyone who is not an authorized service provider;
   (5). Damage to a product that has been modified or altered without permission;
   (6). Damage to a product that has been used in damp, high/low temperature or any other harsh environments;
   (7). Any other damages that are not caused by our factory.
5. Please keep the Guarantee Card properly. We reserve the right to Refuse warranty in case of no Guarantee Card provided.